

# TBT1A

Rotating Speed  
Sensor



## Product Overview

TBT1A rotation speed sensor is a magnetoelectric rotation speed sensor, and it is installed the case or case cover of transmission gear, the tested rotary object is magnetic conductivity gea which has two signaling hole with diameter 4 mm (depth 3 mm). It is composed of permanent-magnet steel, electrical inductance coil, shell, shield cable, connector, etc. Output signal is similar to sine wave, adapting operation with other speed measuring control equipment in the various transport facilities. The sensor can detect the rotational speed of transmission gear and the speed of transport, applicable to various transport facilities.

## Features

- Wide temperature accommodation
- Wide speed measuring range
- Strong shock resistance
- Good tightness
- Non-contact with tested gear, without abrasion
- Convenient installation, simple and reliable

## Main Technical Data

Supply Voltage : 12VDC~30VDC  
 Frequency range: 1.83Hz~2500Hz  
 Operating temperature: -25°C~+100°C  
 Speed measuring range: 1000rpm~33000rpm  
 Signaling hole: 2×Φ4, depth 3 mm  
 Operating air gap: 1mm  
 Output waveform: Similar to sine wave  
 Output channel: 1  
 Coil resistance: 850Ω±10%  
 Output feature: Load resistance 10KΩ 0.5V≤Vp-p≤40V  
 Insulation resistance: ≥500MΩ (500V Megohmmeter) (REV. 01)  
 Insulation strength: 500V/50Hz/60s  
 Output short - circuit protection: Available 2 2  
 Vibration and shock: Vibration 5.9 m/s ; Shock 30 m/s  
 Interface: QJ1-4BF1

The definition of cable & connector output function

S/N	Shield cable	Connector	Output function
1	White wire	Pin 1、3	Output polarity —
2	Red wire	Pin 2、4	Output polarity +

Installation\operation and malfunction disposal. Forbidden contact between terminals; otherwise the permanent-magnet would be demagnetized greatly, even damaged.  
 Output wire distribution as per the definition strictly, and ensure it correct, without short and open circuit; Strong recommend the air gap between gear and the head of sensor is adjusted to 1.0 mm, after adjusting the air gap, tighten locknut; When check the sensor, use the multimeter to measure DC resistance (connector pin C and pin A), the resistance should comply to 850Ω±10%, which shows the sensor work normally.

## Outline and instal. drawing

